

**We Claim:**

1           1.     A disc playback system comprising a disc drive for reading a coded  
2     signal recorded on a disc type recording medium, and transmitting the coded signal  
3     through a synchronous channel of a digital bus, and plural display units each  
4     receiving the coded signal from the digital bus, and decoding and displaying the  
5     coded signal, wherein:

6                 each of the plural display units outputs disc control information including a  
7     read command for controlling the disc drive so as to read the coded signal from the  
8     disc type recording medium; and

9                 one of the plural display units receives the disc control information from the  
10    other display units, and the display unit receives, at least as for the read command,  
11    the read commands from all of the other display units which are operating and,  
12    thereafter, outputs one read command to the disc drive.

1           2.     The disc playback system of Claim 1, wherein the disc type recording  
2     medium is a DVD.

1           3.     The disc playback system of Claim 1, wherein the digital bus is a  
2     vehicle-mounted digital bus to be mounted on motor vehicles.

1           4.     A disc playback system comprising a disc drive for reading a coded  
2     signal recorded on a disc type recording medium, and transmitting the coded signal  
3     through a synchronous channel of a digital bus, and plural display units each  
4     receiving the coded signal from the digital bus, and decoding and displaying the  
5     coded signal, wherein:

6                 each of the plural display units performs operation on the basis of a periodic  
7     signal whose temporal relationship with data on the synchronous channel is  
8     constant;

9                 one of the plural display units generates decoder control information  
10    including at least a playback command, outputs the decoder control information to

11 the other display units, and executes decoder control at a timing when a  
12 predetermined time  $t$  ( $t$ : positive real number) has passed from the  $n$ -th periodic  
13 signal ( $n$ : natural number) after the display unit outputted the decoder control  
14 information; and

15 each of the other display units receives the decoder control information, and  
16 executes decoder control at a timing when the predetermined time  $t$  has passed from  
17 the  $n$ -th periodic signal after the display unit received the decoder control  
18 information.

1 5. The disc playback system of Claim 4, wherein the decoder control  
2 information includes a pause command.

1 6. The disc playback system of Claim 4, wherein a signal indicating a  
2 frame period of the digital bus is used as the periodic signal.

1 7. The disc playback system of Claim 4, wherein the disc type recording  
2 medium is a DVD.

1 8. The disc playback system of Claim 4, wherein the digital bus is a  
2 vehicle-mounted digital bus to be mounted on motor vehicles.

1 9. A disc playback system comprising a disc drive for reading a coded  
2 signal recorded on a DVD, and transmitting the coded signal through a synchronous  
3 channel of a digital bus, and plural display units for receiving the coded signal from  
4 the digital bus, and decoding and displaying the coded signal, wherein:

5 each of the plural display units generates an operation clock of 27MHz from  
6 a transmission path clock of the digital bus, and performs decoding operation on the  
7 basis of the operation clock.

1           10.    The disc playback system of Claim 9, wherein the digital bus is a  
2   vehicle-mounted digital bus to be mounted on motor vehicles.

1           11.    A display unit for receiving a coded signal which is read from a disc  
2   type recording medium by a disc drive, and decoding and displaying the coded  
3   signal, including:  
4           a disc control information output means for outputting disc control  
5   information including a read command for controlling the disc drive so as to read the  
6   coded signal from the disc type recording medium;  
7           wherein the disc control information output means receives disc control  
8   information including the read command from other display units connected to the  
9   digital bus, and it receives, at least as for the read command, the read commands  
10   from all of the other display units connected to the digital bus and, thereafter,  
11   outputs one read command to the disc drive.

1           12.    A display unit for receiving a coded signal which is read from a disc  
2   type recording medium by a disc drive and transmitted through a synchronous  
3   channel of a digital bus, and decoding and displaying the coded signal,  
4           the display unit performing operation on the basis of a periodic signal whose  
5   temporal relationship with data on the synchronous channel is constant; and  
6           the display unit comprising:  
7           a decoder control information generation means for generating decoder  
8   control information including at least a playback command;  
9           a decoder control information output means for outputting the decoder  
10   control information generated by the decoder control information generation means  
11   to another display unit connected to the digital bus; and  
12           a decoder control means for executing decoder control, employing the  
13   decoder control information generated by the decoder control generation means, at a  
14   timing when a predetermined time  $t$  ( $t$ : positive real number) has passed from the  $n$ -

15 th periodic signal (n: natural number) after the decoder control information output  
16 means outputted the decoder control information to the other display unit.

1 13. A display unit for receiving a coded signal which is read from a disc  
2 type recording medium by a disc drive and transmitted through a synchronous  
3 channel of a digital bus, and decoding and displaying the coded signal,  
4 the display unit performing operation on the basis of a periodic signal whose  
5 temporal relationship with data on the synchronous channel is constant, and  
6 the display unit comprising:

7 a decoder control information reception means for receiving decoder control  
8 information including at least a playback command, from another display unit  
9 connected to the digital bus; and

10 a decoder control means for executing decoder control, employing the  
11 decoder control information received by the decoder control reception means, at a  
12 timing when a predetermined time t (t: positive real number) has passed from the n-  
13 th periodic signal (n: natural number) after the decoder control information reception  
14 means received the decoder control information from the other display unit.

1 14. A display unit for receiving a coded signal from a digital bus, and  
2 decoding and displaying the coded signal, including:

3 a decoding clock generation means for generating a decoding clock of  
4 27MHz for performing decoding operation, from a transmission path clock of the  
5 digital bus.

1 15. A disc playback system comprising a disc drive for reading and  
2 outputting a coded signal recorded on a disc type recording medium, and plural  
3 display units for decoding and displaying the coded signal outputted from the disc  
4 drive, including:

5 a parameter control means performing a control such that a display unit  
6 which is performing display operation holds parameters used for the display

7 operation and, when another display unit has started up, the display unit performing  
8 display operation transmits the parameters to the other display unit which has started  
9 up.

1 16. A disc playback system comprising a disc drive for reading and  
2 outputting a coded signal recorded on a disc type recording medium, and plural  
3 display units for decoding and displaying the coded signal outputted from the disc  
4 drive, wherein:

5 one of the display units performing display operations transmits parameters  
6 which are stored in the self unit and used for the display operation, to another  
7 display unit which has started up.

1 17. A disc playback system comprising a disc drive for reading and  
2 outputting a coded signal recorded on a disc type recording medium, and plural  
3 display units for decoding and displaying the coded signal outputted from the disc  
4 drive, wherein:

5 the disc drive is provided with a parameter storage means for holding  
6 parameters which are used for display operation of a display unit and, when another  
7 display unit has started up, the disc drive transmits the parameters which are used by  
8 the display unit performing the display operation, to the other display unit which has  
9 started up.

1 18. A disc playback system comprising a disc drive for reading and  
2 outputting a coded signal recorded on a disc type recording medium, and plural  
3 display units for decoding and displaying the coded signal outputted from the disc  
4 drive, wherein:

5 when at least one of the plural display units receives an operation input from  
6 a user to the self unit and parameters which are stored in the self unit and used for  
7 display operation are altered, the display unit transmits the altered parameters to all  
8 of the other display units performing display operations.

1           19. A disc playback system comprising a disc drive for reading and  
2     outputting a coded signal recorded on a disc type recording medium, and plural  
3     display units for decoding and displaying the coded signal outputted from the disc  
4     drive, wherein:

5           one of the plural display units controls the disc drive;

6           when a display unit other than the display unit controlling the disc drive  
7     receives a user's operation input for controlling the disc drive, the display unit  
8     transmits a control command for controlling the disc drive to the display unit  
9     controlling the disc drive; and

10          when the display unit controlling the disc drive receives the control  
11     command for controlling the disc drive from the display unit other than the self unit,  
12     it controls the disc drive on the basis of the control command, and transmits altered  
13     parameters to all of the other display units performing display operations.

1           20. The disc playback system according to any of Claims 15 to 19,  
2     wherein the parameters are data for resumption.

1           21. The disc playback system according to any of Claims 15 to 19,  
2     wherein the disc drive and the plural display units are connected with each other  
3     through a vehicle-mounted digital bus which is to be mounted on motor vehicles.

1           22. A disc playback system comprising a disc drive for reading and  
2     outputting a coded signal recorded on a disc type recording medium, and plural  
3     display units for decoding and displaying the coded signal outputted from the disc  
4     drive, wherein:

5           the display units include decoding means for decoding the coded signal; and

6           one of the display units transmits a control signal to the decoding means of  
7     the other display units.

- 1           23.     The disc playback system of Claim 22, wherein the disc drive and the
- 2 plural display units are connected with each other through a vehicle-mounted digital
- 3 bus to be mounted on motor vehicles.

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